Lesson 19 - Ascertaining The Human Dietetic Character, Part II

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1. Humans Developed To Their Hight State Entirely On Fruits

Humans declare themselves to be the highest form of animal life. Paleontology teaches that hominid forms of life appeared on Earth some sixty million years ago. Distinct human forms have been identified from fossil finds dating back about four million years. Pre-hominid beings were insect eaters but, as some types of pre-hominids took to the trees, they gradually became fruit eaters.

Fruit eaters, proving quite harmonious to the needs of fruit-bearing trees, stimulated the growth of better and more nutritious fruits. Evolving trees developed the bearing of fruits as a viable way of existence.

The interplay between fruit-eating animals and fruit-bearing trees begot an ever greater profusion and variety of fruits. Myriads of different fruits were developed to attract fruit eaters. In this symbiotic relationship, trees grew fruits as foods for animals in exchange for a service—the service of seed distribution, thus insuring survival of kind.

On the other hand fruits proved such wonderful fare for fruit eaters that they became the raw materials for superior growth and endowment. Our ancestors of sixty million years ago weighed just a few pounds. They thrived so well on the fruit diet that they became too heavy for tree life. These precocious developers were called primates. The brains of certain branches of primate life, notably those branches which became humans, developed rapidly and became quite large relative to other forms of life.

Let us examine how this symbiosis between humans and fruit trees created the superb creatures which we regard ourselves as being.

1.1 The Evidence of Paleontology

Paleontology is that branch of science which deals with fossil remains. Inasmuch as our objective is to establish that fruits are our natural fare and that we thrive best on an all-fruit diet, we'll refer to fossil evidence that particularly affirms our adaptation to fruit.

Dr. Alan Walker of Johns Hopkins University in Maryland examined the fossil remains of humans. After making detailed examinations, especially of the teeth, he concluded that humans were exclusively and only fruit eaters. Walker's examinations were detailed in the May 15, 1979 issue of *The New York Times*. His findings came like a bombshell into our culture, where fruits are relatively sparse in the diet.

1.2 The Evidence of Anthropology

Anthropology is the study of humans. The study of anthropology involves the origin and development of humans in cultural, social, physical and racial aspects.

Anthropologists have established that human culture, social organization and body adaptations arose from a background in nature as a fruit-feeding animal. Humans, like their primate and simian cousins in nature, are clannish in social organization. Most of their acculturization involves the beauty of their natural foods, fruits, and the trees which produce them. Physically, humans developed on fruits just as our simian and other primate relatives in nature. In consequence anthropologists and biologists have classified humans as frugivores or fruit eaters.

1.3 The Evidence of Archaeology

Archaeology concerns itself with the artifacts of past peoples and civilizations. Archaeology also confirms our fruit growing and consuming past. Archaeological finds show that we've been heavy eaters of fruit from remotest antiquity. On the other hand, we've eaten grains only for the past six to ten thousand years. Our meat-eating past as civilized peoples has been limited to recent times and has usually been confined to those peoples living in the far North. Most of the world's peoples still consume little or no meat. Grains have become a practically universal diet, though there are pockets of tuber, legume and fruit eaters.

Throughout Europe the mounds and great stones attest to fruit cultivation. Much pottery from ancient times has upon it inscriptions and drawings of fruit. Fruit-gathering and storing vessels are found over much of civilized earth. The records left by our ancestors attest to the great role fruits played in our dietary.

1.4 The Evidence of History

Much of our recorded history was destroyed during the destruction of the great libraries of Alexandria and Carthage. What remains tells us of great gardens and orchards. Herodotus, the Greek historian, records that Greeks were heavy eaters of olives, figs, dates, grapes, apples, oranges and other fare. This noted historian wrote: "The oldest inhabitants of Greece, the Pelasgians, who came before the Dorian, Ionian and Elian migrations, inhabited Arcadia and Thessaly, possessing the islands of Lesbos and Lakemanas, which were full of orange groves. The people with their diet of dates and oranges lived on an average of more than 200 years."

Another Greek, the poet Hesiod, said, "The Pelasgians and the people who came after them in Greece, ate fruits of the virgin forest and blackberries from the fields." Plutarch, the Greek biographer, observed: "The ancient Greeks, before the time of Lycurgus, ate nothing but fruits."

Pythagoras, one of the wisest of the ancient sages, is credited with being the father of mathematics, modern astronomy, philosophy and other sciences, and was perhaps the greatest, of all Greeks. His fare was almost entirely fruits. He left his mark on the world as no other man before him did. He was the author of the philosophy of the Essenians from whence originated many of the principles of Christianity as we know it.

Much of our history indicates that our ancestors were fruitarian. But, history books today omit or falsify our past and our fruit-eating nature. Biology and physiology books are also so altered. Even such a simple word as frugivore has been omitted from most current dictionaries and encyclopedias.

1.5 The Evidence of Legends and Traditions

Much of organized religion had its origins in sun and tree worshiping societies. Apollo is a god of the apple tree. His name means apple. Avalon means the fabled island of apples. The Garden of Eden was an

orchard. Its walls corresponded with the ancient "para desa" or walled orchards. These walls kept the orchards intact from animals and retained the day's heat to protect against the night's chill.

The most fabled land of fruits was Java. After this land was named, Japan, Hawaii and many other countries paid homage to Java as their homeland. Israel was once the land of Yahveh (YHVH), which may be pronounced the same as Java. Such names as valhalla (originally avalhalla) merely means "apple hole" or a place for apple storage. Many places throughout Europe as well as many of the pagan deities have names that correspond with Java and the names of fruits.

Henry Bailey Stevens has created an excellent book, *The Recovery of Culture*, which gives evidence of our fruitarian past as found in lingering legends and beliefs. Sir James G. Fraser's *The Golden Bough* is the most thoroughgoing publication ever on the origins of deities, beliefs and rituals. A reading of *The Golden Bough* will quickly reveal that most systems of reverence were built around climate, the sun, trees and the fruits they produced.

1.6 The Evidence of Anatomy

What we are is attested to by our anatomical makeup. Our physical character has been determined by our arboreal past.

Fruitarians of the mammalian primate order have revolving joints in their shoulder, wrist and elbow joints. These allow for free movement in all directions. They have hands and fingers with apposable first digits (thumb) for grasping and gathering the product of trees. Fruit gatherers and tree dwellers have stereoscopic binocular vision. This makes possible vision that is precise in its ascertainment of positions of limbs and objects. Frugivores developed larger brains than their animal counterparts. All have only two mammary glands and usually have only one offspring per pregnancy. The teeth of humans are identical in almost every respect to our anthropoid relatives in number, kind and usage. We do not here intend to prove the biological relationship of our simian relatives. We only wish to prove that our teeth are practically identical to acknowledged frugivora.

Anatomically, humans are in most particulars unlike herbivores, carnivores and omnivores. Every organ and system differs radically because each is suited to the animal's respective modes of food acquisition, eating and digestion.

1.7 The Evidence of Physiology

The structures of humans attest them to be in every respect fruitarians. This fact is irrevocably confirmed by the functions of the human body. Every alimentary function is geared to a fruitarian dietary.

In keeping with other frugivora, human saliva is alkaline. An alkaline environment of the mouth and, consequently, the stomach, is chemically necessary to handle starches which are sometimes incidental to fruits. Further, it initiates the neutralization of the acids of many fruits.

In contrast, the saliva of meat-eating animals is of an extremely acid character. Proteins such as those found in meats require an acid medium for their digestion. The high acidity of the saliva of carnivora greatly assists in dissolving and digesting flesh with almost no mastication.

The natural food of humans is readily absorbed without any digestion other than the proteins, fats and starches incidentally it. The simple sugars of fruit undergo no change in the stomach or duodenum, being absorbed directly as fructose and glucose as it exists in fruits.

The fare that is recommended by conventional nutritionists is classified into the "basic four food groups." The foods listed under the "basic four" present nearly impossible digestive tasks to the body, especially when combined into a single meal as advocated. Over 50% of the meals eaten in America result in indigestion. The cause for this indigestion is the eating of wrong foods wrongly combined.

Even if eaten alone, legumes result in digestive problems. We are not physiologically equipped to handle

the heavy concentration and combinations of fat, starch and protein found in legumes.

Indigestion and gas result from the eating of legumes, especially if they're eaten with foods other than green leaves, stalks and stems.

Even if eaten alone, meats will digest poorly and invariably undergo putrefaction to some extent before absorption. Even if eaten alone, grains and starchy foods stress the human digestive faculties.

Inordinate amounts of mechanical, chemical and nerve energy are required for the digestion of grains, whether eaten raw or cooked.

Physiologically, meats furnish us practically nothing except amino acids. Almost no energy is derived from flesh when man eats it. The amino acids of proteins will be broken down for energy only in the absence of carbohydrates and fats, which are our primary sources of energy. Hence, ingestion of protein foods beyond our small need of 20 to 30 grams daily is without justification and in practice is generative of pathological by-products.

Foods other than those of our biological adaptation usually have some indigestible components that make them toxic in the human body. For instance, milk is pathogenic to humans. We do not have the enzymes rennin and lactase to break down casein and lactose respectively. Wheat is pathogenic because we do not have enzymes to break down phytic acid and gluten. Other grains are similary pathogenic. Vegetables often have toxic substances, notably oxalic acid, mustard oil, allicin, aloin, glycosides, toxic alkaloids, etc.

When we consider human physiology, we must do so within the context of nature rather than in the environment of modern acculturization. Thus, we must consider foods that we would have eaten raw in the natural state in our pristine environment as being consonant with our physiological faculties. All the evidence points to fruits as being the food of our adaptation. The evidence points to nothing else—no insects, no grass, no grain, no leaves, stems or stalks, no animals, no tubers or roots and not even any nuts! The most conclusive evidence submitted has stated that we were exclusively and only fruit eaters.

Humans secrete a paucity of enzymes as compared with meat-eaters, omnivora, starch-eaters, etc. We secrete a very weak solution of hydrochloric acid necessary for meat eaters. We secrete very little of only one starch-splitting enzyme, amylase (ptyalin). And our ability to digest fats is also very poor. We have the ability to efficiently handle only one type of food—foods comprised of monosaccharides or simple sugars. Only fruits meet this requirement.

Fruits are said to be "cleansing" foods. The fruits do, not, of themselves, cleanse the body. The ascription is earned because the body handles fruits so efficiently it can redirect much of the energy that had been expended on wrong foods to the tasks of extraordinary elimination. Further, raw fruits or their juices do not leave any toxic substances in the body.

Fruits are our ideal food and the only foods capable of meeting our physiological capabilities in every respect.

1.8 The Evidence of Psychology

Of all the areas that have been explored as to our dietetic character, this aspect of our being has received scant attention. Fortunately, our psychological disposition has not changed with respect to our dietary nature, just as our physiology and anatomy are the same today as they were millions of years ago.

Imagine yourself in a state of nature today without tools, without any ability to make a fire—with only the resources of your natural equipment in a very food-rich environment. Let us say that, in your immediate area, there are open spaces and trees. Let us presume that a substantial number of these trees bear fruits and nuts. Let us presume that in the open spaces grow grass, tubers and weeds. Let us further presume that the environment has a prolific fauna of birds, rabbits, squirrels, hogs, deer and other creatures.

Picture yourself in this environment. Can you imagine for a moment that you would delight in the capture of a deer with your bare hands under the speed you could develop by running or by surprising the deer and pouncing upon it, then sinking your "fangs" into it and dispatching it by a fatal bite to its jugular vein, heart or other organ? Would you relish a bloody face and body while you feasted upon flesh, offal, bones, blood and organs? Would this delight your palate, or does the very idea repulse you?

Can you imagine gathering the miniscule seeds of grass for hours on end for sufficient calories to meet your bodily needs? And then more hours of laborious chewing a few hard grains at a time to ensalivate and comminute them preparatory to digestion?

Can you imagine digging tubers and eating them as tuber eaters do? Unwashed—with soil and tuber too. With your snout, you'd unearth the tubers and quickly dispatch them, digesting them readily with copious quantities of the four to six starch-splitting enzymes that true starch eaters have. Do you relish this, or does the very idea repulse you?

Do you think you'd relish weed eating? Do you think you could get your requirements from these precursors to today's vegetables?

Or would you warm to the idea of taking ripened bananas directly from the stalk? Of plucking ripe figs and mouthing them in the tree's shade? Of breaking open luscious melons and eating their sweet succulent nectar?

Just think what appeals to you most and what is most repulsive to you. You can readily determine, from your own feelings, our psychological disposition toward improper and proper foods when you consider them and your relationship to them in a totally natural context.

If you see a squirrel, is it your natural disposition to snatch and eat it, or to be kind to it? Do you have the heart to try and kill the charming little creature? Does anyone who has yet within him/herself a streak of humanity have the nerve to do that?

The world has become very much perverted. People actually do relish the sight of packages of beefsteak, chicken legs and breasts and other prepared and embalmed carrion.

Despite these perversions, it is the rare person that does not look with favor upon watermelons, cantaloupes, pineapples, strawberries and other fruits. Despite their eating perversions, most peoples' palates are easily won back to fruits by taking them through a fast and then realimenting them on fruit fare. Fruits are not only our best foods, they are our only biologically-mandated foods.

2. Fruits Still Best Meet Our Needs Despite Their Present Lower Quality

We often hear the cry today that we cannot subsist on fruitarian or fruitarian/vegetarian fare today because of the lowered quality of this type of foodstuff due to artificial fertilizers and pesticides, among other things. This argument is quickly disposed of in two ways. First, whatever may be said against this kind of fare on this account usually goes double for the fare the eater is partaking of in its stead. Secondly, one may cite the actual components of fruits and demonstrate in a most convincing way that fruits contain all our needs in the quantities determined to be essential in the human dietary.

2.1 Tables of Composition of Fruits Compared to our Recommended Daily Allowances

In support of this lesson's message we are happy to introduce you to the composition of some of our most common fruits. So that this comparison will have meaning for you, we have chosen 1 1/2 lbs. dry weight as the given amount of each food. This amount of food yields, in the case of fruits, about 2,400 calories, more than enough to sustain a very active healthy person even though less than the RDA. Fruit yields far more calories than conventional foods.

The average American eats about seven pounds of food a day. More than 40% of this caloric intake is in the form of fats. The average American has a caloric intake of 3,380 calories per day. We have listed the RDA for various food components as well as our actual needs as determined by realistic norms for fruit-eaters and in light of RDA's of other countries.

It must be distinctly understood that the RDA's listed are for a 150-pound man and that the needs of women and children will vary from this. Heavier men will usually require more than the RDA's listed.

This table of food composition has numbers assigned at the headings. Following is the legend for those numbers.

1. NAME OF FOOD. In its fresh ripe raw condition.
2. WEIGHT IN POUNDS of 1 1/2 pounds (680 grams) of the food, dry weight with natural water content.
3. GROSS CALORIE CONTENT. We obtain about 90% of the energy potential from fruits, whereas from proteins we obtain about 30% of their energy potential. We must actually expend more energy in processing foods such as celery and lettuce than is obtained from the food. Calories are meaningful in the human dietary only from the standpoint of utilization rather than what energy the food will produce in a firebox.
4. PROTEIN CONTENT. Note that the RDA is nearly three times higher than our actual need. All listings are in GRAMS.
5. VITAMIN A. Values are in International Units or I.U.
6. VITAMIN B-1, Thiamine in milligrams.
7. VITAMIN B-2, Riboflavin in milligrams.
8. NIACIN in milligrams.
9. VITAMIN C in milligrams.
10. CALCIUM. Listings are in milligrams.
11. MAGNESIUM. Entries are in milligrams.
12. PHOSPHORUS. Entries are in milligrams.
13. POTASSIUM. Figures indicate milligrams.
14. IRON. Figures indicate milligrams.

1 Food	**2 Wt. Lbs.**	**3 Cal.**	**4 Pro**	**5 Vit.A**	**6 B-1**	**7 B-2**	**8 Nia.**	**9 Vit C**	**10 Calcium**	**11 Mag.**	**12 Pho**	**13 Pot**	**14 Iron**
RDA, 150 lb Man (moderately active)	—	2,700	70	3330	1.4	1.6	15	60	800	300	800	3000	10
Actual Needs	—	1800 to 2,250	25	1,500	1.0	1.0	6	25	200	100	200	1,500	5

One-year Infant Needs	—	1,000	15	1,000	.4	.6	6	25	150	100	200	700	2
Human Milk	3	1,050	15	4000	.5	.8	8"	.60	450	150	190	700	1.5
Apple	9.5	2520	9	4050	1.4	.9	.5	315	315	280	450	4900	13
Apricot	10	2350	46	124,000	1.4	1.8	2.7	460	782	550	1060	12926	23
Avocado	5 1/2	4450	56	7550	2.8	5.0	40	360	260	1170	1100	15700	15
Banana	6	2380	31	5300	1.4	1.6	19	280	224	924	726	10460	20
Cantaloupe	17	2310	54	261,800	3.2	2.4	48	2540	1078	1232	1232	19320	31
Dates, Dried	2	2450	20	450	.8	.9	20	0	530	520	560	5800	27
Figs, Dried	2	2450	38	720	.9	.9	6.3	0	1130	640	690	5760	27
Grapes	8	2440	36	3650	1.8	1.1	11	146	440	220	730	6228	15
Mango	8	2442	26	177600	1.8	1.8	40	1295	370	670	480	6990	15
Orange	11	2450	50	10000	5.0	2.0	20	2500	2050	550	1000	10000	20
Papaya	13 1/2	2340	36	105000	2.4	2.4	18	3360	1200	720	960	14000	18
Peaches	14	2360	38	93000	1.2	3.0	62	434	560	620	1180	12400	31
Pear	9	2440	29	800	.8	1.6	.4	160	328	287	440	5200	12
Persimmon	6	2430	22	79000	.9	.6	.3	410	460	260	780	5700	15
Pineapple	10	2390	18	3200	4.0	1.4	9	785	800	600	370	6700	23
Watermelon	20	2390	46	54280	2.7	2.7	18	640	640	730	920	9200	46

For comparison purposes let's now consider some foods you'd never under any circumstances eat 1 1/2 pounds of (dry weight) but which might be added to the diet on some occasions with advantage insofar as it gives you excellent nutrient insurance.

1 Food	**2 Wt.**	**3 Cal.**	**4 Pro**	**5 Vit.A**	**6 B-1**	**7 B-2**	**8 Nia.**	**9 VitC**	**10 Calcium**	**11 Mag.**	**12 Pho**	**13 Pot**	**14**

	Lbs.												**Iron**
Kale	12	2050 *	225	485000	8	13	105	10100	9800	2000	5040	21000	112
Iceberg Lettuce	33	1960 *	135	49800	9	9	45	905	3020	1660	3320	26425	75
Looseleaf Lettuce	25	2050 *	148	216000	7	7	35	2050	7700	1700	2850	30096	158
Celery	25	1940 *	103	27400	3.5	3.5	35	1025	4250	2510	3190	38870	34
Broccoli	14	1980 *	223	155000	6	15	56	7000	6400	1480	4820	23680	68
Almonds	1 1/2	4200	130	None	1.7	6.3	25	None	1640	1900	3530	5400	33
Pecans	1 1/2	4800	64	900	6	1	. 6	14	510	1000	2030	4220	17
Sunflower Seeds	1 1/2	3950	168	350	14	1.6	38	None	840	270	5250	6400	50

* These items would yield few if any calories. In fact, you'd probably expend more calories in processing most of these foods than you'd obtain from them.

I feel these listings serve as sufficient examples to indicate that fruits, with certain exceptions, meet our needs. Apples may be seen to be the most deficient of the fruits. Yet there were whole cultures of ancient times that subsisted on a diet that was about half apples!

If we eat a *varied* diet of fruits, the excesses of one, in view of the body's ability to husband excesses, compensates the deficiencies of the other. So we might paraphrase an old saying: "Eat and be merry. Eat and don't worry. Eat correctly without sorrow and you'll enjoy many a tomorrow."

2.2 A Brief Note on the Present Theory of Caloric Needs

An examination of the peoples the world over who live active lives and thrive on from 1,200 to 2,000 calories per day affords us grave suspicions as to our supposed calorie requirements. Raw food fruitarians rarely eat more than 2,000 calories per day even if they labor hard and long!

1. Fruit fare yields more calories than conventional American fare. While conventional fare will yield 3,380 calories in the firebox, it does not yield this amount of energy to the human digestive/ assimilative system.
2. Cooked foods have some of their caloric values destroyed.
3. Cooked food eaters require more energy for digesting, processing and removing the toxic debris of cooked foods.
4. Cooked foods are usually eaten with condiments which are toxic. More internal energy is required to deal with toxic materials.

5. The average American is toxemic. More energy is required for body maintenance purposes than in non-toxemic persons.
6. Healthy fruitarians, conversely, require less calories for internal maintenance and, because of extraordinary health, make more efficient use of the calories they obtain.
7. Fruit fare yields more than 90% of its calorie potential. Conventional fare yields only about 65% to of its calorie potential. Taking this into account, plus the extra energies involved in maintaining a perpetually pathological condition, it can be seen why fruitarians thrive on about half the calories considered needed.

These considerations, of course, resolve nothing. There are serious discrepancies between what conventional nutritional science says we need and the actual needs of raw-food fruitarians.

2.3 Observations on the Significance of These Charts

These charts have been prepared and presented to establish that fruits, as our natural foods, supply our real needs amply. They often supply many times over what we are said to need by conventional standards such as the Recommended Daily Allowances.

We do not support the idea that "more is better." To have a margin of safety is an excellent practice, but gluttonizing on nutrients overloads and burdens the body unduly. This burdening occasions pathological problems. The body is wise beyond our comprehension and provident beyond our knowledge. It flourishes on fruit fare and will never suffer any of the grave consequences said to result therefrom. Supplying the body with enough, is all that we need concern ourselves with.

3. Some Charges Made Against Fruits And Fruit Eaters

Most Hygienists/Life Scientists may be called timid fruitarian idealists. They are all too willing to admit, even proclaim, that we are naturally frugivores and that our ancestors lived either on nearly all or completely fruitarian diets. "A fruit meal is the ideal," they espouse. Yet most of these same people are unwilling to try subsisting on fruits! Some Hygienists think we must supplement the fruit diet with some cheese, others think we must have some vegetables. Still others think fruits are great but should be supplemented with nuts (which are also fruits botanically).

The "consensus" diet that we have advocated consists of fruits, vegetables, nuts and seeds.

Nevertheless many Hygienists eat seeds, nuts, sprouts, green leaves, stalks, stems, tubers and grains almost to the exclusion of fruits! These peoples fruit intake largely consists of avocados, tomatoes, peppers, cucumbers and squash.

When asked why they do not eat more fruit despite giving lip service to fruit as the ideal, most Hygienists will tell you that although fruit may be alright for short periods of time as a "cleansing" or "elimination" diet, it is not to be taken except as a luxury. These are the charges made against fruits:

a. Fruits are protein poor;
b. Fruits have too many free acids;
c. Those who subsist on fruits become neurotics;
d. Fruits are too poor in iron and anemia results if only fruits are eaten;
e. Those who eat only fruits will suffer nutritional imbalances and deficiencies;
f. Fruit eaters cannot maintain weight and are too thin;

g. Fruit eaters become over-alkaline and often suffer alkalosis; and
h. Fruits are deficient in calcium as well as protein and results in stunted growth in youngsters.

Taken together, these statements sound like quite an indictment. Yet, almost the same charges were made by the medical profession against both fruits and vegetables 150 years ago. Fruit eating was then said to result in fevers, biliousness and other maladies. Fruit was treated as a dessert or as a decorative accessory.

Of course this indictment has never been heard by tribes and peoples who subsist almost totally on bananas, custardy coconuts (before its fats and fibers form), dates, figs and similar fruits. Orangutans of the East Indies live exclusively on fruit and are the most intelligent and human-like of our primate relatives.

How can one defend the concept of fruit as our natural food? Is this stance hypocritical? Is there substance to the aforementioned charges? Is fruit really our natural food after all? Is it possible that it no longer supplies our needs? Has the human constitution changed? Here we have many questions arise that need answering.

3.1 "Fruits Are Protein-Poor"

The charge is made that fruits are protein poor. It is true that if you compare a banana in the dry state with its 5% protein content to a soy bean in the dry state with 35% protein, the banana is, indeed, protein poor. But the protein content of any food has relevance only to our need of it as an item of diet. So we must understand our need for protein relative to our diet.

A growing human baby gets a mono diet of its mother's milk for many months before it touches any other food. Mother's milk for her rapidly developing infant contains only 1.1% protein. Surely no one can argue that a grown person can require more protein than a growing child relative to its weight or as a percentage of its diet. If anything, the grownup who has attained full development requires less protein than a nursing tot. A grown person might get adequate protein on as little as half a percent of his or her dietary content.

The RDA for protein is said to be 70 grams daily for an average man of 150 pounds. This figure is well over twice the actual human need. In fact, it is about three times the actual need as established by tests by Dr. Chittenden of Yale and Dr. Hinhede in Denmark and many others. Further, there are groups of physically-robust people in the Caribbean who thrive on an average intake of about 15 grams of protein daily. (They eat cassava or manioc.) Keeping in mind that the body can obtain up to 70% of its protein needs by recycling its proteinaceous wastes, it becomes somewhat evident that protein needs in humans have been overblown. The meat, dairy, poultry and fish industries have made their mark, even on those who reject animal products as items of food.

Can we continue to say that fruits are protein poor? In view that, if protein is one per cent of our diet, our protein needs are amply met, then fruits are protein adequate! When we've eaten some 2,250 calories worth of almost any fruit except apples, we've also ingested some 25 to 40 grams of protein. Inasmuch as most fruits do contain all the essential amino acids, I would adjudge that fruits meet human needs for protein amply.

History bears out beyond refutation that humans have been fruit eaters during their entire sojourn on earth excepting a period beginning during the ice ages. Even then, a preponderance of our ancestors still ate fruits. Most migrated south to warmer climes and continued to eat fruits. Grain eating is not more than 10,000 years old. Meat eating, though much older than that, was mostly confined to northerly peoples. Almost all mythology is built around trees and climatic factors that affected trees. Only relatively recent mythologies connect humans to grain culture and animal husbandry.

3.2 "Fruits Have Too Many Free Acids"

The charge that fruits have too many free acids is false and rather pointless. Fruits have no free acid. All are organic. Vinegar, cheese and fermented milk are substances with free acids, namely acetic and lactic acids.

Humans are primarily sweet fruit eaters. Yet even grapefruits, plums, sour cherries, sour grapes, lemons, limes and other acidic fare have no free acids.

The human body metabolizes most acids in fruits very well. Benzoic acid, tannic acid, oxalic acid and prussic acid, none of which are free acids and all of which are rare in fruits, are among those acids that give humans metabolic problems. Humans handle citric, tartaric and malic acids very well. These are the primary fruit acids: Perhaps the occasions when fruit acids give problems occur when acid fruits such as lemons, strawberries, pineapples or grapefruit are eaten along with sweet fruit such as bananas, dates, figs, raisins, persimmons or non-fruit fare.

3.3 Those Who Subsist on Fruits Become Neurotics

The third charge that those who subsist on fruits become neurotics is simply ridiculous. If fruit is, as we contend, a perfectly wholesome food furnishing all the needs of human life, then it will occasion nothing but great health. While we are the first to affirm that nervous malfunctions or neurosis have physiological bases, we also point out that these problems stem from toxemia in almost every such case. They often, but not always, precede neurosis. Most neuroses are complicated by anxieties, insecurities, worries and other emotional disruptions begotten by an inhumane social system. I daresay we have uncounted millions of neurotics and few are fruit eaters. Unfortunately, our psychologists do not recognize the physical basis of neurosis and give credence almost completely to emotional, social, economic and mental factors. Physical derangements often lay the groundwork for mental derangements. Hence the charge that fruits cause neurotics is a charge which I don't think has ever been substantiated.

There are fruit-eating societies of humans in this world and descriptions of them bespeak the most peaceable, congenial and harmonious dispositions of any peoples on earth.

3.4 Fruits Are Too Poor in Iron and Cause Anemia

The charge that fruits are too poor in iron and cause anemia is likewise without foundation. The body can recycle up to about 95% of its iron supply and needs very little from the outside. It is said that our RDA of iron is some 10 milligrams daily. This, like other RDA's, is some two to three times too high. Nevertheless, oranges sufficient to meet our caloric needs supply about twenty milligrams of iron daily. In fact, if you compared all the fruits and their iron content, you'd find every one meeting the RDA for iron with surfeits. A food that might be said to be deficient in iron by these RDA's is, of all things, a mother's milk!

Should fruits be charged as being Vitamin B-12 poor, then the same can be said of all foods, even the foods that animals eat. Only meats and certain kinds of algae have what is termed sufficient Vitamin B-12. But if animal fare such as grasses, leaves, grains, herbs and fruits do not furnish animals with vitamin B-12, how do their organs come to be so rich in it? Why are the organs of fruit-eating primates rich in it? How is it that fruitarian societies are not anemic from lack of Vitamin B-12? The truth is that humans, like all other animals, obtain ample supplies of Vitamin B-12 from bacterial production in their intestines. Even garlic eaters usually do not destroy enough of their symbiotic bacterial flora to deny themselves of an adequate supply of Vitamin B-12.

So I adjudge the charge that fruit eaters are anemic to be without any substantive evidence whatsoever.

3.5 Those Who Eat Only Fruits Suffer Nutritional Imbalance and Deficiencies

The charge that fruit eaters will suffer nutritional imbalances and deficiencies likewise finds no basis in fact. Fruits, eaten judiciously according to their seasons, furnish us with every nutrient factor, known and unknown, in plenteousness. Those ancient Greeks whom we admire so much for their statuesque bodies, were fruit eaters. Most ate heavily of apples, dates, oranges, olives, figs and grapes. The Greek and Roman gods are ascriptions born of reverence for fruit trees and food-bearing plants.

3.6 Fruit Eaters Cannot Maintain Weight and Are Too Thin

The charge that fruit eaters are too thin is not borne out by even the simplest investigation. Personally, I've gone down into the 120-pound range and came back to the 150-pound range with excellent muscular development, on a diet almost entirely of fruits. My wife has to watch her intake of heavy-calorie fruit foods, especially nuts, lest she become too heavy. As previously pointed out, the Greeks thrived on fruitarian diets. Pythagoras, one of the giants of Grecian literature, philosophy and mathematics, was a fruitarian and had a whole school of followers who, likewise, were fruitarians. Actually, the teachings of Pythagoras very much parallel the teachings of Gautama Buddha, whose teachings Pythagoras was conversant with. Buddha was, in essence, a tree worshipper as were fruitarian societies. Bacchus is portrayed as heavily overweight and this is attributed to fig gluttony.

3.7 Fruit Eaters Become Over-Alkaline and Suffer Alkalosis

The charge that fruit eaters are over alkaline and often suffer alkalosis is, likewise, baseless. We humans can harmlessly excrete excess alkaline substances but, if we get excess acid-forming substances as from meats, animal products, cereal foods, etc., we really have problems. The body must rob its bones, teeth and other alkaline structures for the alkalis, mostly calcium, necessary to neutralize the acids generated from acid-forming foods. The maker of this "alkalosis" charge simply ignored physiology. It ill becomes vegetarians or fruitarians to make such a charge.

3.8 Fruits Are Deficient in Calcium as Well as Protein and Results in Stunted Growth in Youngsters

Fruits are said to be deficient in calcium. To investigate this I made charts of a number of fruits and their composition. Our fuel needs can be met amply by fruits. Calcium and a plethora of other nutrients are a component of every gram of fruit food. When we have eaten sufficient fruit to supply our caloric needs, say about 2,250 calories, how much of our RDA for calcium have we met? The RDA is set at 800 milligrams per day for a 150-pound man. This, like other RDA's, is some two to four times too high. Nevertheless, let's look at some fruit foods and their calcium content when 2,250 calories worth have been consumed.

Oranges, a widely-consumed fruit, have about 2,050 milligrams of calcium, 2 1/2 times the RDA. Apples have 315 mg. Apricots have 782 mg. Cantaloupes have 1,078 mg. Figs have 1,130 mg. Bananas have 224 mg. and banana-eating societies have excellent bone formation by all standards. Grapes have 440 mg., dates have 530 mg., mangos 370 mg., pineapples 785 mg., watermelon 640 mg. and so on down the line. Obviously fruits supply us amply with our calcium needs. The saying that fruit eaters suffer stunted growth does not withstand serious inquiry. As previously noted, statuesque Greeks were fruit eaters.

3.9 Build Your Confidence in the Fruitarian Dietary

Fruit eaters are not usually fat, brawny hulks as are grain, milk and meat eaters. The question arises: are these standards forming a criterion of health or pathology?

Let me cite an example. Murray Rose, an Australian who set swimming record after swimming record, was primarily a fruit eater though he partook of some seaweeds and vegetable fare.

Now if we confirmed fruitarians were to start making charges against those who want to eat "exciting" foods such as, cooked dishes, often laden with condiments, vegetables, cereals and even dairy products such as yogurts, and cheeses, many could be well-substantiated. Wrong foods create toxemia.

The illnesses that beset almost all Americans amply attest to this fact. Even those who pride themselves on a vegetarian diet or a "health" diet or even a Hygienic diet often find themselves suffering toxic conditions. Toxemia arises out of practices that cause toxins to be ingested, generated and/or retained. Fruit eating is universally said to be cleansing and promoting the function of elimination, and it is recognized for its non-toxic nature.

4. Questions & Answers

As far as I'm concerned, you've nailed down the cause for fruitarianism. But isn't it impossible to nourish yourself well with the general low quality of fruit today? With all the artificial fertilizers, insecticides, and depleted soils, how can we hope to be well-nourished on fruits?

> Even with these definite detractions, eating low-quality fruits is still the best we can do if we cannot procure organically grown fruits. Whatever can be said against fruits on this score goes double for everything else other than fruits. This problem does not only exist with fruits!
> Should you have fears in this matter, you can invoke insurance in the form of super nutrient-concentrated foods such as green leafy vegetables and nuts.
>
> Keep in mind that there has been little deterioration in fruit quality since the tables of composition were made that are reproduced herein.

You mentioned that some doctors found we needed about an ounce of protein a day, less than 30 grams. Who are these doctors and how did they prove it?

> One such doctor was Dr. M. Hinhede of Denmark, who was entrusted to the nutritional welfare of that country for the duration of World War I. Having conducted many experiments on a mono-potato diet, among others, he maintained subjects in fine health for protracted periods while doing hard physical labor. (Some oil on the potatoes and green leaves were also eaten.) The protein intake of his subjects was 30 to 40 grams daily. When he took over as the "food czar" of Denmark, he decreed that animals cease to be reared as food and that the land be devoted to vegetarian fare. He effectively put Denmark on a low-protein diet. As a result, the health of Danes greatly improved, the death rate plummeted and there was never a food shortage. He wrote a book, *Protein and Nutrition*, which presents his studies.
> Professor Russell H. Chittenden of Yale University was one of the pioneers of nutritional research. He conducted many varied experiments. These experiments involved diets, restricted diets and limited protein intake. In his *Nutrition of Man* we learn of his experiments with his fellow professors and students on food intake. We learn how he reduced food intake severely yet his subjects still continued to grow and thrive.
>
> Chittenden reduced the protein intake of Yale athletes to a mere 25 grams of protein daily,

yet they continued to gain weight, became more muscular and performed better than before. Among the many experiments he conducted were competition between his vegetarian athletes and meat-eating athletes. The vegetarians, on the average, outperformed the meat eaters by a large margin.

Is there any harm in adding a meal of sunflower seeds and a salad of vegetables to a general fruitarian program?

Having been on fruitarian fare for a long time and then having a meal of sunflower seeds and tomatoes, with some vegetables such as broccoli and celery, I can attest to its tastiness. All tables of composition say I'm getting more than enough of everything I need. They don't tell about the extra sleep required after even a moderate meal of such fare, nor the drowsiness the following morning, nor the mental dullness nor the physical disinclination to activity.

I would say this indicates in part a body that is accommodated to fruitarian fare—in fact, one that has a marked preference for fruitarian fare! It can handle such food, but it greatly burdens the system. Unaccustomed expenditure of energies and nerve force produce what is, in effect, a hangover.

I would say that for one accustomed to fruitarian fare there is some harm in indulging in such a meal. Yet the books show that there is great nutritional gain to be had by eating such a meal. Personally, I find I'm better off without it. The definitive answer remains to be rendered in this matter.

I just love potatoes about any way they're prepared. Are potatoes so terribly bad if eaten with vegetables?

I've just cited what Dr. M. Hinhede of Denmark did for millions of people on a diet heavy in potatoes. He kept one man in good health for 12 years on a mono diet of potatoes.

Potatoes are not our natural foods. The cell coverings of their starches prevent our access to the potato's food value if they're eaten raw. Cooking breaks the cells and releases the starch which, by the heat, has been partially dextrinized. But the heat required to break down cellulose does far more damage than that.

Potatoes are not a wholesome food. However, they are far less harmful than the conventional American diet. Fruits are far superior on every count. When you consider that the body must digest and convert the starchy/dextrinized potato to glucose for body use, does it not seem far better to eat fruits whose sugars are already in the form of glucose (fructose or levelose)? NO digestion is needed for fruits—just eat and appropriate.

What about eating the seeds of fruits? Pumpkin seeds and nuts are actually the seeds of fruits, not the fruit itself. Is it good to eat the seeds of apricots, apples, peaches, grapes, melons and so on?

During our millions of years sojourning in nature, there is evidence that our dietary consisted of some nuts that were primarily oily and proteinaceous and had little or no starch. I want to emphasize that nuts were usually secondary and constituted a very small part of our diet. As fruit eaters, we obtained our water needs from our fare and thus developed no water-drinking equipment as a part of our anatomy. Had we been nut and seed eaters, this would not have been the case. Thus it may be said that we are incidentally nut and seed eaters.

I advise you to limit your and your clients' intake of nuts to small portions on rather infrequent occasions, certainly not more than three or four times weekly. This is meant to

apply to an oily fruit, the avocado, as well, because it has the same consistency as some nuts. Apple, peach and apricot seeds are outright poisonous. Melon seeds are not relished, though the melons themselves are great. Pumpkin seeds are of about the same consistency of nuts, as are sunflower and sesame seeds. Grape seeds should not be eaten. In the use of fruits, keep in mind that the fruit adequately supplies our needs. Our symbiotic role in nature—our implied compact with trees—is to eat the fruit as our reward for distributing the seeds.

I feel you've proved your point about fruit being our natural food. But where do you find anyone today who lives on just fruits? Hasn't everyone gotten off base?

Yes, it's true that fruitarians are so rare that they seem nonexistent. I would consider myself fruitarian, though I eat perhaps 2 to 3% vegetable fare such as lettuce, celery, broccoli, sprouts and bok choy.

There are other fruitarians in this country, especially in California, Florida and Hawaii. There are tribes and societies of fruit eaters in the Amazon of Brazil and in the Southwest Pacific. There are some fruit eating societies and groups in Europe and Africa, some in Asia and some in Australia. But, relatively, fruitarians are very rare.

Indeed, almost everyone is off base. Likewise, almost everyone suffers some physical problem.

How do you suppose fruits developed in the first place?

There is symbiosis or mutual cooperation and harmony in nature. It is not a jungle where only the fittest survive its vicissitudes, as is widely thought. There are few vicissitudes in nature.

Trees bearing fruit developed alongside creatures that demanded fruits. Trees responded to this beneficial patronage by developing even more profuse amounts of luscious fruits. Those creatures demanding a variety of fruits fared better and better as they grew and improved, thus demanding even more fruits.

We observe in nature how symbiosis works by noting that bees are specifically provided nectar by flowers. The bees, in gathering this nectar for food, contaminate themselves with pollen from the anthers of the flowers. When they visit other flowers they perform the service of spreading the pollen to the stigma of the flower pistil. This facilitates pollination, a valuable service. As you know, without bees, flowers of trees will not be pollinated to any great extent. Likewise, without fruit-eating animals there would be no fruit trees. The development of fruits and fruit eaters was mutual and parallel.

You've spoken about fruits without their water content. If you don't consider water, what amount of proteins, mineral salts, fatty acids and vitamins should our foods contain to meet our needs?

Let's look at a fine food, bananas. Let us consider 1 1/2 pounds, or 680 grams, of dry weight bananas. The protein content of this amount of bananas is 31 grams, or about 4.5% of total dry weight. Its mineral matter comprises 22 grams, or about 3.3%. Its fats amount to about 5.2 grams or about .8%. Its carbohydrates amount to about 610 grams which is, as you can see, about 90% of the total weight. The rest is unusable cellulose, which is neutral in character in the human body. That is, it is neither harmful or helpful.

Inasmuch as bananas are excellently qualified to meet our needs, you can see that our primary need is for fuel values. Other nutrients, though being equally essential, comprise a

small percentage of the whole.

Are dried fruits as good as fresh fruits? Should we eat them at all?

Dried fruits are never as good as fresh ripe fruits. Yes, we should eat dried fruits when the fresh fruits available to us do not meet our caloric needs. Dried fruits have lost a substantial part of their vitamins and some of their minerals due to oxidation. Dried fruits are good primarily for their fuel values. They are usually ultra-sweet and thus serve as wonderful desserts when eaten with other fruits.

If we get all the Vitamin B-12 we need from bacteria in our digestive canal, then why do vegetarians have less B-12 than do meat eaters?

There could be many reasons for the variance in amount of B-12. The body takes up from the ileum the amount it requires for use and storage. While both meat-eaters and vegetarians have about a five-year reserve supply of vitamin B-12, the levels of B-12 in the blood stream of meat-eaters is much higher than that in fruit-eaters and vegetarians, Meat eaters represent a pathological norm. They may have more B-12 in the system because of increased need due to their condition, or it may be that their bloodstream is contaminated by the meats they eat as well as being profusely supplied by intestinal bacterial activity. The higher amount of B-12 may be due to both increased need and increased supply.

We must regard nutrients in regard to our need for them. Getting enough is all that is necessary.

Why are vegetarians warned so much about Vitamin B-12 deficiency? Why do so many use cheese, eggs and other dairy products to get Vitamin B-12?

Many vegetarians fall victim to the propaganda of commerce. Such unsuitable items of diet ruin health—not enhance it.

How does the body rob its bones and teeth of calcium ? Isn't that a ridiculous statement to make?

When the body is in an emergency situation that requires base mineral salts for food metabolization, it does autolyze its teeth and bones for the needed base organic salts. Some such emergency situations include ingesting white sugar, or acid neutralization as in uric acid from meat, or when its supply is exhausted due to an acidotic diet sparse in alkaline minerals. This is how osteoporosis and osteomalacia occur.

If Hygienists and Life Scientists give only lip service to fruit as the ideal, what do they really eat?

They do eat a lot of fruit, but it usually comprises considerably less than half of their intake. Much of their intake is in nuts, salads, steamed potatoes, rice, cheese, steamed squash, steamed sweet potatoes, steamed broccoli and steamed corn. While most eat around 50 to 80% raw, I would regard the 20 to 50% eaten in cooked form far less than ideal.

When I eat fruits, especially bananas, I get gas. Why is this so?

When you get gas, that means you're not properly absorbing the sugars of the bananas. Bacteria are fermenting it. I usually eat bananas alone and do not have this problem. I sometimes eat bananas with other fruits and with celery and lettuce. I still do not have this problem. If your body is not absorbing the sugars available from bananas, there must be some physiological faculty involved that is not functioning properly. I suggest that you fast for a period of time and then try bananas again a day or two after breaking the fast.

Fruits do not cause gas. Failure to absorb their carbohydrates makes them available to our bacterial flora which create gas. Overeating, of course, can cause quite a bit of gas. Eating wrong combinations can cause lots of gas. That food material that is not absorbed will be dealt with by intestinal flora which ferment and/or putrefy it in accord with the character of the food.

I've tried a few fruit meals for a few days running. They don't stay with me very long and I get hungry again very quickly. Is that normal?

It is normal to absorb meals of fruits quickly. But it is abnormal to be hungry again immediately after such a meal has been appropriated, for the body usually shuts down the appestat upon having absorbed its needs of sugars and nutrients.

There exist several possibilities as to why you feel hungry so quickly. Possibly you're mistaking appetancy for hunger. Possibly you have gastric irritation. Possibly your body has not yet accommodated to fruit meals and still has irritations that drive you to yet seek the old satisfactions and stimulations. But it is unlikely that the fruit meals are not supplying your needs or that you are feeling true hunger as a result of your bodily needs.

Demonstrated irrefutably in this lesson is the nutritional adequacy of fruits in supplying human needs.

In the previous lesson we demonstrated that fruits are the only foods that meet, all relevant criteria for a human food. This lesson has shown that specific nutrients for which RDA's have been established are contained amply within the various fruits available to us on our markets.

Further, this lesson has dealt with charges made against fruits as foods and refutes them on a charge-by-charge basis. The lesson shows that the charges are groundless and are of a nature as might be inspired by the meat, grain and dairy industries who have a commercial interest in promoting their products.

Article #1: Fruit Eating By Dr. Herbert M. Shelton

Fruit is food. Indeed, fruits are among the few substances produced in organic nature that seem to be designed specially to serve as food. The old medical prejudice against fruit, so strong during the last century that cities passed ordinances against bringing fruits into the cities during the summer months, was hammered down by Hygienists, and Americans learned to relish fruits. Unfortunately, in certain Hygienic circles this old anti-fruit prejudice has been revived. Some of our Hygienists have developed a groundless fear of a number of wholesome fruits.

Fruits supply the body with an abundance of minerals, sugars, vitamins and, in the case of some of them, considerable high-grade protein. The sugar in fruit is ideally associated with minerals and vitamins and need not be rejected as one does (or should) refined sugars. Fruit sugar is superior as human nutriment to honey, which is so ludicrously lauded in many quarters. Indeed, honey, when compared with the sugars

of fruits, ranks about on the level with white sugar.

Most fruits are abundant in minerals, also containing important trace minerals, so that they form important and vital ingredients in the diet of the growing child. Most of them are deficient in calcium, but this is easily compensated from other wholesome sources. Fruits are commonly rich in vitamin C but contain less of other vitamins. They are, however, on the whole, excellent sources of vitamins.

They are commonly low in protein, rarely containing over two to two and a half percent and many of them containing much less than this. The date, banana, avocado and a few other fruits contain small amounts of excellent proteins. Supplemented with nuts and green leaves, their proteins become valuable additions to the diet. A fruit and nut diet is improved by the addition of green leafy vegetables. A large green salad each day makes such a diet almost ideal.

Most fruits contain more or less acid—such as malic, citric, tartaric, etc., being present. The prejudice that has grown up around fruits is a revival of the medical prejudice against acid fruits. They were declared to cause "acid diseases," and were regarded as especially objectionable in rheumatism.

Fortunately, the body is able to oxidize the organic acids of fruits, at least of those fruits that we commonly use as food. These leave an alkaline ash upon being oxidized. There is often some difficulty with the acid of prunes, but there is no ground for the prejudice that has been revived against oranges, tangerines, lemons, grapefruit, tangelos, tomatoes and similar citric-acid bearing fruits.

The acids of berries are also easily oxidized and these, also, leave an alkaline ash. The acid radical of organic acids is expelled as carbon dioxide through the lungs; the alkaline salts left help to alkalinize the blood. Teeth have been kept uninterruptedly immersed in lemon juice for as long as six months and the acid had no effect on their enamel. There would seem to be no foundation for the idea that eating oranges or drinking orange juice injures the teeth.

It should be generally known that when acids are taken into the mouth there is a copious outpouring of an alkaline saliva, which bathes the membranes of the mouth and the tongue. This secretion of saliva is kept up long after the acid has been swallowed. Any acid left on the teeth or in the mouth is quickly neutralized by the alkaline saliva. We are too prone to overlook the body's own provisions for its safety.

In the late spring and summer, when such fruits as peaches, plums, apricots, nectarines, cherries, the various berries, canteloupes, watermelons, grapes, figs, etc., are plentiful, it is well to make a large part of the diet fruits. In the fall, when pears, apples, persimmons and the citrus fruits come into season, these should constitute a large part of the diet. Certain of these fruits, like the tomato, grapes, oranges, and grapefruits are plentiful throughout most of the year and may be eaten all the time. The avocado is abundant through most of the year, but is best eaten during the cooler periods of the year. Such sundried fruits as figs, dates, raisins, peaches, apricots, pears, etc., may be freely eaten during the winter months.

The melons make an excellent breakfast during the season of the year when they are ripening. They are best eaten alone. A large piece of watermelon makes an adequate breakfast, even for the physical worker. Canteloupe, banana melon, casaba, cranshaw and the Persian melon, in season, make a delightful and satisfying breakfast. If more food is desired for breakfast, it should be taken half an hour after eating the melon.

Nearly all of what we see of so-called allergy to fruits is indigestion resulting from wrongly combining the food eaten. Fruits with starches, fruits with sugar, fruits with proteins, and similar combinations are prone to decompose, producing gas, discomfort, skin eruptions. Melons with other foods may cause marked distress—eaten alone, they digest with the greatest of ease. In very young children there may sometimes be a short period during the development of a child, when its digestive system cannot handle a certain fruit, for example, an apple. It is well to leave some fruits out of a child's diet until its development has progressed to a point where it can easily digest the fruit that gives trouble.

Great improvement in the ability to digest and handle foods follows a fast. It is no uncommon thing to find that an individual who has trouble with a particular article of food, can take it with the greatest of

ease after a fast. If we can learn that what is called allergy is not a permanent possession, but that when its causes are removed, it ceases, we can understand that it is possible for us to become able to enjoy any wholesome food. It amazes those who are "allergic" to strawberries, for example, to see no trouble develop if they are placed on a strawberry diet.

When fruit is eaten with a meal of bread, flesh, potatoes, butter and the rest of the usual meal, the fruit usually being taken at the end of the meal, but often at the beginning, the indigestion and discomfort that result from such combining of foods will almost certainly be blamed on the fruit, which may be the only wholesome article of diet in the meal. The discomforts following such a meal may range all the way from a little gas formation that scarcely attracts the attention of the eater, to a painful indigestion accompanied with nausea, vomiting and diarrhea. The fruit, kept away from the other foods, and eaten as a fruit meal will digest easily and result in no discomfort.

Fruits that are peeled and sliced and permitted to stand for long periods of time before eating are hardly wholesome foods. They change color, lose flavor, undergo oxidation with resulting loss of food value and tend to decompose readily. Fruits added to breads, cakes, pies and various other kinds of pastires can also occasion considerable indigestion and distress. In this latter case, not only is the food spoiled in preparation and cooking, but the combination is indigestible. Fresh fruits, with cleaning as the only preparation, are most easily digested. The addition of sugar, syrups, honey and other sweeteners to fruits can also result in indigestion and discomforts.

Fruits have fallen into disrepute with many people for the reason that they find that they suffer with discomfort after eating them. It was Dr. Dewey who said that fruits demoralize digestion. He was especially opposed to eating apples. This trouble with fruits grows out of the practice of wrongly combining them. Strawberries and melons are commonly singled out as fruits that "I am allergic to," and these foods are wholesome and toothsome. If taken alone as in the case of melons, or properly combined as in the case of strawberries, they almost never cause any trouble. Skin rashes and intestinal disturbances that often follow the eatings of fruit or that follow a particular fruit may, almost always, be traced to wrong combining. In the few cases where this is not so, a correction of the way of life, so that normal digestive power is reestablished, soon enables the individual to eat fruit. I do not think that there is anyone who cannot eat freely of fruits if due care is taken in combining them.

Fruit: Best Food Of All by William L. Esser

Of all the foods that we can eat, fruits are the best in every respect. They are objects which enchant the eye, delight the smell and thrill the normal taste beyond the sensation incited by any other food. In itself, fruit is perfect. It requires no preparation of any kind other than cleansing, coring or peeling. Cooking, seasonings, additions and substractions make it less, not more palatable.

Beyond its appeal to the senses, it possesses most of the essential proteins, minerals and vitamins necessary for maintaining health at its highest level. Obtained in large enough variety, fruits (with the addition of nuts which are also fruits) would be ample for the maintenance of ideal health.

Many facts indicate that humans were originally frugivorous or fruit-eating animals, not omnivorous as we are presently. That humans have strayed from their natural diet for the past few thousand years does not mean that organs have changed so as to be suited to the prevailing diet. The changes that have occurred are the weakening, softening and degeneration of a creature of true grandeur. If any change has occured, it is that we have become diseased creatures. We have lost our physiological excellence. For this reason, it is more important that we adhere more closely to our natural diet. The ruinous habits of

eating must be dispensed with entirely. Only pathology has resulted from our unnatural dietary.

Fruits constitute our ideal diet and should comprise most of its bulk. Vegetables, nuts and seeds can be added with great benefit when the rules for food combining are observed. It is never the fault of the fruit. Fruit should be ripe at eating time. Overly-ripe fruits should be shunned. Fruit is most luscious and at the peak of perfection when it is plucked from tree, stalk or vine in a just-ripened condition. No store-bought fruit can approach freshly-picked fruit for quality or flavor.

Whenever possible, fresh fruit should be bought from the grower, rather than at the market which obtains much of its stock from storage houses. Those living in colder climates have little choice during winter time, however. Much care must be exercised in selecting the best available.

Ability to judge various fruits in the market to determine their fitness is an accomplishment which can only come with experience. Most fruits, regardless of whether they belong to the acid, sub-acid or sweet classification, possess an elating sweetness and flavor when they are ripe. Experience will teach you to judge a good apple among a whole bushel of inferior ones at a single glance. Care must be taken to avoid fruits which have been damaged by frost, blight, rot or any other similar influence. Fruits today are sprayed excessively against insects and before they are eaten, they should be carefully washed and brushed, in order to eliminate the poison from them.

Some unripe fruits contain starch and various other carbohydrate substances which are distasteful and unwholesome. On the other hand, decay sets in on over-ripe fruits, and the sugars are changed to carbon dioxide, alcohol, acetic acid and other harmful by-products. Over-ripe fruits deteriorate rapidly in their nutritive values. These changes, plus the loss of water, account for the sponginess and insipidness of fruit which has been stored for long periods of time.

Fruit is potentially alkaline. Alkalinity occurs after it has passed through the processes of digestion. If the fruit is of poor quality, improperly combined or the digestion is weak, it often remains in an acid and its absorption creates many unpleasant symptoms such as nervousness, sleeplessness, frequent urinating from bladder irritation, intestinal gases, mucus in the stools, throat irritation, etc. Most of the time, however, the symptoms which follow the eating of fruit are not the fault of the fruit, but of impaired digestive faculties. There are those who will eruct and experience flatulence and distress in the bowels regardless of what they eat. People so affected are ill and should put a stop to eating until their digestive system has recovered its powers. Fruits should not be haphazardly mixed with other foods, or even other fruits! Even the best digestion cannot successfully cope with indiscrimate and chemically-incompatible mixtures. A good policy is not to eat more than one or two kinds of fruit at a single meal.

Fruits can be divided into three classifications: sweet, sub-acid and acid. Sweet fruits can be combined tolerably well with sub-acid fruits but should not be as a matter of practice. But the combining of sweet fruit with acid fruit can prove quite distressful. For example mixing bananas and grapefruit or dates and oranges is worse than not eating anything. The best plan in combining fruits is to mix only fruits of the same classification. For example bananas, dates, figs and raisins are sweet fruits. Apples, pears, most grapes, mangos and papayas are among the sub-acid fruits. Berries, cherries, peaches, pineapples, etc., are among the acid fruits.

Melons of all kinds should be treated as a fruit category in themselves and should be eaten alone. Nuts may be eaten after the end of a fruit meal, preferably after a fruit meal of acid fruits. Lettuce and celery may be beneficially added to fruit meals in small quantities.

As with any food, chewing plays a vital part in the thorough digestion of fruits. Every particle should be systematically liquified, thereby insuring absorption and assimilation. This is doubly important when you realize that most fruits undergo no digestion in the stomach. The swallowing of carelessly-chewed food is a major reason why food lies in the stomach and ferments. The digestive juices are unable to break down large pieces of food and bacterial decay sets in. Drinking a glass of orange juice or any other fruit juice in one or two gulps does more harm than good. It should be sipped slowly and tasted, if eaten at all, not swallowed as though one were trying to quench a fire. Fruits should never be eaten cold.

Room temperature is ideal.

Fruits should not be considered merely as a dessert or a between-meal refreshment, nor in the same light as the "apple a day keeps the doctor away" philosophy. They are due much higher regard. To take them as a "laxative" or to cleanse the bloodstream, or to take fruits in any way which savors of medicine instead of food is wrong.

Fruits are the finest kind of food. They should be treated as such. Sick people should not be eating. A sick body requires rest and fasting, not food, regardless of the nature of the illness. The major part of one's diet should consist of fruit. It is the most delicious, wholesome and perfect food that can be had.

Article #3: Proteins In The Fruitarian Diet By Dr. Herbert M. Shelton

Can man get adequate protein from a fruit diet? This is to ask: If a man were to attempt to live as a strict frugivore, could he be adequately nourished? We put this question in relation to the protein of this diet because there is no question about the ability of a fruitarian diet to supply adequacies of fats, carbohydrates, minerals and vitamins.

In an article entitled "Why I don't eat Meat" by Owen S. Parrett, M.D., which has had wide distribution, the author says, "W.C. Rose of the University of Illinois, an authority in the field of protein, says that "less than twenty-five grams a day is all one needs."

"If a man were to eat no meat, eggs or milk he would still get on the average 83 grams of protein a day. A woman would get 61 grams of protein a day. This fact was discovered in a research project made by Dr. Mervyn Hardinge of the College of Medical Evangelists under Dr. Frederick J. Stare of Harvard, well-known authority on nutrition.

"Dr. U. D. Register, leading biochemist, and Dr. Hardinge, both active in the field of human nutrition, said to me that fruit alone, if amply supplied in sufficient variety, would provide people with enough protein to meet the actual body demand."

Many efforts have been made to live upon a diet of fruits only, usually with only marked degree of success. It has usually been found that such diets are improved by the addition of green leafy vegetables. It is probable that this need has resulted from an insufficient variety of fruits. Certainly when we consider the wide range of food substances included under the term fruit, there would seem to be no necessity for inadequacies in the diet of the fruitarian. Nuts, which are fruits, are nearly all rich in protein of high biological value, capable of supplying adequacies of all the amino acids essential to growth and reproduction.

The biologist defines a fruit as "a ripened ovary with or without associated parts." To make this a bit more complete, a fruit is the matured ovary of the flower, its contents and all intimately connected parts. Fruits are often more complicated than this description indicates. In addition to the development of the ovary wall, the calyx may also become fleshy and envelope the ovary as in the apple and pear; or the end of the stem (receptacle) may enlarge and form a part of the fruit, as in the strawberry and blackberry. Tough shells or rinds may form for protection, as in nuts and lemons; or a delicious flesh may envelop a hard inner stone, as in the peach and plum. Some fruits, as the potato and peanut, are matured underground.

All of these developments serve to perform a few simple functions:

1. They protect the ovules and seed while they are maturing
2. They prevent loss of water.
3. They provide for seed dispersal.

An animal eats the fruit and discards the seed at a distance from the parent plant. Edible fruits may thus be said to be the coin with which the plant compensates the animal for services rendered—that of dispersing the seed. A seed is a matured ovule enclosed in the fruit. Many fruits are merely mechanical devices to secure seed dispersal and are not edible. We need not consider these in our discussion of fruits.

A brief glance at the evolution of a fruit may help us in forming a clear picture of a fruit. The ovary grows as the seed develops, giving rise to a fruit. A fruit, in this sense, is not necessarily a fleshy edible product, but the seed-carrying organ of the plant. It is customary to include nuts in the category of fruits, although, it is the seed rather than the seed-carrying organ that we eat.

A fruit may consist of a single ovary with but one seed, as in grains, nuts, cherries, plums and peaches, or it may evolve from a single ovary which has several seeds, as the bean, pea, apple and orange. Then there are flowers which possess several ovaries which combine to form compound fruits like the strawberry or raspberry.

With the foregoing explanation in mind, it should not be difficult for each of my readers to answer himself the question: Is the tomato a fruit or a vegetable? Fruits are all produced by plants and, in this sense, they are all vegetables. But they are special parts of plants and are classed as fruits because of this. The tomato, as the matured ovary of the tomato flower containing seed, is quite obviously as much a fruit as the apple or orange. The cucumber squash, pumpkin and similar foods are fruits.

Confining ourselves, in this discussion to edible fruits, and ignoring those fruits that serve only as seed dispersers and have no food values, fruits are either dry or fleshy, simple or compound, depending on the character and development of the ovary which formed them.

1. Examples of fleshy fruits are the apple, pear, cherry, peach, apricot, plum, nectarine, mango, banana, tomato, and gooseberry.
2. Examples of dry fruits are legumes (beans and peas), acorn, hickory nut, pecan, walnut and almond.

Thus it will be seen that the term fruitarian may be used in a wider sense than is commonly thought. Indeed, in a biological sense, it may be made to include eating practices that probably should be foreign to man. This is to say that there may be more than one fruitarian category in nature. We are justified in classing the grain-eating birds as fruitarian, but it is doubtful that grains should form a part of the normal diet of man.

There are fruits that are poisonous, some of them poisonous before ripening, others poisonous after ripening. These latter should be excluded from man's diet. An excellent example of a fruit of this kind, one that is commonly eaten, is the cranberry. Sumac berries we refrain from eating, because, although tasty, they are toxic. Some plant substances are poisonous to some animals and not to others. An example is belladona, which, highly poisonous to man, is non-toxic to the rabbit after it is six weeks old. After this age the rabbit secretes an enzyme that enables it to digest the two toxins in the plant. Man produces no such enzyme.

In the same manner a fruit that may be poisonous to man may prove to be an excellent food for other animals. Nothing seems to eat the sumac berries. It may be possible that they are toxic to all forms of life. They are regarded as good herbal medicines, precisely because they are toxic. My readers should keep always in mind the rule of medicine: *If the plant is non-toxic, it is food; if it is toxic, it is "medicine."*